UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

District 9

COAL FATAL

REPORT OF INVESTIGATION
(UNDERGROUND COAL MINE)

MULTIPLE FATAL ROOF FALL ACCIDENT (BUMP)

Braztah No. 3 Mine (ID No. 42-00165)
Braztah Corporation
Helper, Carbon County, Utah

April 27, 1978

by

W. J. Blanc
Coal Mine Inspector

Charles Babbitt
Civil Engineer

Originating Office - Mine Safety and Health Administration
Drawer J, 575 East First South, Price, Utah 84501
Tony Gabossi, Acting Subdistrict Manager

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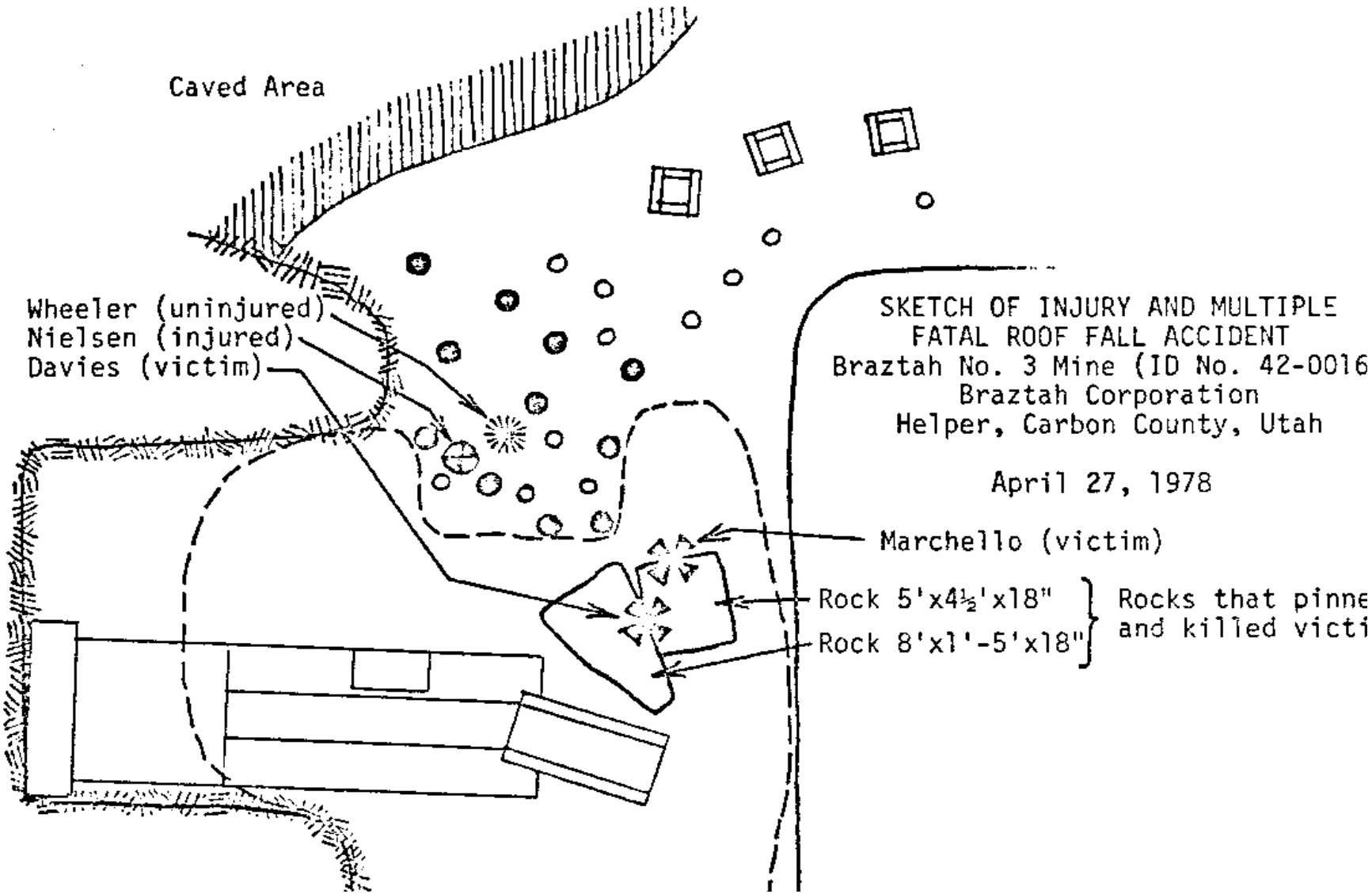

Caved Area
Wheeler (uninjured)
Nielsen (injured)
Davies (victim)
SKETCH OF INJURY AND MULTIPLE
FATAL ROOF FALL ACCIDENT
Braztah No. 3 Mine (ID No. 42-0016
Braztah Corporation
Helper, Carbon County, Utah
April 27, 1978
Marchello (victim)
Rock 5'x4½'x18"
Rock 8'x1'-5'x18"
Rocks that pinne
and killed victi

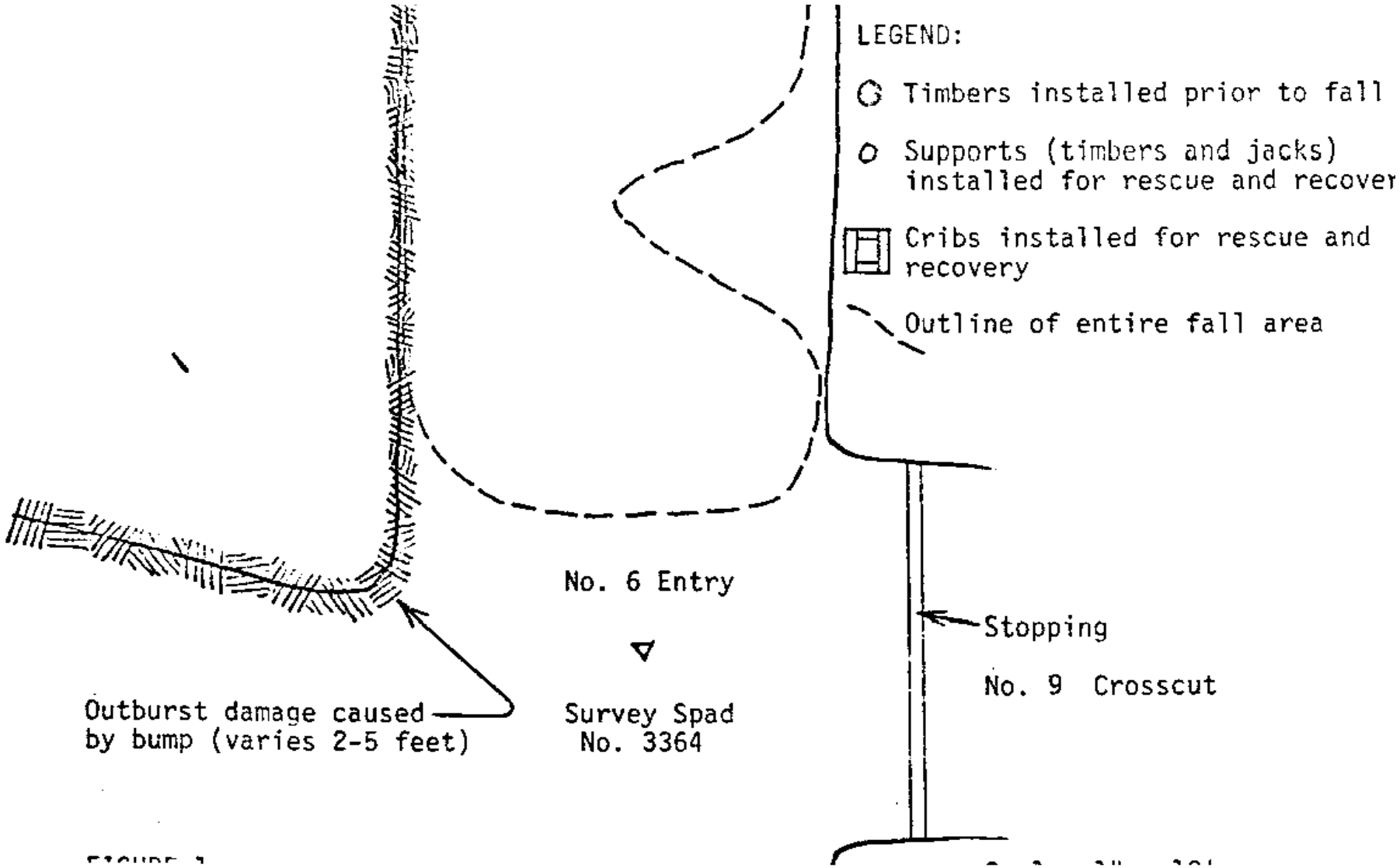


FIGURE 1

Abstract of Investigation

Title of Investigation: Multiple Fatal Roof Fall Accident (Bump)

Report Release Date: August 2, 1978

Mine: Braztah No. 3 Mine

Mine I.D. Number: 42-00165

Company: Braztah Corporation

Town, County, State: Helper, Carbon County, Utah

Author(s): W. J. Blanc, Charles Babbitt

Originating Office - Mine Safety and Health Administration-Coal Mine Safety and Health
District 9

Address: Drawer J
Price, Utah 84501

Mine Information

Daily Production 4,000 Tons

Surface Employment 34

Underground Employment 215

Name of Coalbed Sub-Seam No. 3

Thickness of Coalbed 6 Feet

Last Quarter Injury Frequency Rate (HSAC) for:
Industry 40.02
This Operation 27.58
Training Program Approved No, in process
Mine Profile Rating 723

Authority - This report is based on an investigation made pursuant to the Federal Coal Mine Health and Safety Act of 1969 (83 Stat.742), as amended by Public La 95-164 (1977)

Abstract

See attached sheet

Information for this report was compiled through a MSHA investigation that was started April 27, 1978

Company Officials:	Name	Address
President	C. V. Wood,	McCulloch Oil Corporation, 10880 Wilshire Blvd, Los Angeles, CA
Superintendent	Harold Carter,	Braztah Corporation, Box 599, Helper, UT 84526
Safety Supervisor	John O'Green,	Braztah Corporation, Box 599, Helper, UT 84526
Principle officer - H&S	Boyd Harvey,	Braztah Corporation, Box 599, Helper, UT 84526
Labor Organization	United Mine Workers of America,	District 22, 23 So. Carbon Ave., Price,

Abstract

On Thursday, April 27, 1978, about 5:45 a.m., a Roof Fall Accident occurred in the No. 6 Entry, 2½ East pillar section of Braztah Corporation's Braztah No. 3 Mine, resulting in the death of John Davies, continuous-mining-machine operator and Charles Marchello, continuous-mining-machine operator, acting as Davies' helper. The accident also resulted in slight injury to Robert Nielsen, timberman. Davies had about 3 years mining experience, the last 1½ years of which were as a continuous-mining-machine operator. Marchello had about 11½ years mining experience, the last 3 years of which were as a continuous-mining-machine operator. Nielsen had about 4 months mining experience, the last month of which was as a timberman. The accident occurred when Davies and Marchello were sawing a timber in the No. 6 Entry with Nielsen nearby. At this time, portions of the roof fall measuring about 55 feet in length, 12 to 32 feet wide and 8 to 18 inches in thickness struck the victims.

resulting in their death and injury. The roof fall resulted from a bump which occurred simultaneously with the fall.

Commentary

On Thrusday, April 27, 1978, at 12 midnight, the 2½ East section crew, under the supervision of Roy L. Wheeler, entered the mine via battery powered mantrip carriers, arriving on the section about 12:30 a.m. Wheeler then examined the active working places for hazardous conditions. Coal production and normal mining activities proceeded. During the first half of the work shift, mining of coal was confined to the pillar between entries Numbers 4 and 5 inby No. 9 crosscut.

Reportedly adverse roof conditions were encountered during the extraction of this pillar which required the installation of additional resin grouted roof bolts and timbers.

Two lunch breaks were scheduled in order to keep mining operations continuous. About 4 a.m. mining was completed in the pillar between entries 4 and 5 and the continuous-mining machine was trammed to No. 6 entry between Nos. 9 and 10 crosscuts. The roof was tested and tests were made for methane. Comments were made by crew members concerning the good conditions of the roof in No. 6 entry as compared to the roof conditions in the previously mined pillar.

A split in the pillar to the left of No. 6 entry was started about 4:30 a.m. John Wade Davies was operating the continuous-mining machine with Charles R. Marchello acting as helper. During the mining of this split, normal bumping conditions were experienced. According to statements by Willard Mark Duncan, shuttle car operator, small pieces of roof material were observed falling from between the steel mats onto his shuttle car while being loaded. He observed Marchello walk behind the continuous-mining machine, shine his light on the roof over the shuttle car and turn back towards the face, indicating that he was observing the roof. The falling of small pieces of roof material was not an unusual phenomenon in 2½ East pillar sections due to the in-

consistent direction of slips in the immediate roof strata. Duncan did not notify anyone of his observations.

Robert A. Nielsen, timberman, and Wheeler were installing posts in No. 9 crosscut where previous mining had been completed. After this job was finished, they walked to the pillar split being mined by way of No. 6 entry. According to their statements, no adverse roof conditions were observed. The pillar split had been developed about 20 feet in depth and 20 feet in width and the mining cycle was completed, except for cleaning up the left side. Mining operations had ceased and Davies and Marchello were positioned between the continuous-mining machine and turn posts, engaged in sawing a post. Wheeler and Nielsen were positioned between the turn and breaker row posts. At this time

(about 5:45 a.m.) a bump or bumps occurred triggering a roof fall which pinned Davies and Marchello to the mine floor. Nielsen was struck on his left arm by falling roof rock. Help was obtained and rescue operations proceeded. It was necessary to install additional temporary roof supports, hydraulic roof jacks, posts and cribs in order to reach the victims. Marchello was recovered at about 7 a.m., transported to the surface where he was pronounced dead at about 7:20 a.m. by Dr. Oliver W. Phelps. Davies was recovered about 7:10 a.m., transported to the surface where he was also pronounced dead by the

same doctor.

Discussion and Evaluation

The investigation revealed the following factors relevant to the occurrence of the accident:

1. A mine bump or bumps caused 36 roof bolts to be sheared off at the fall horizon and 10 additional bolts were sheared, each protruding 2 to 12 inches from the fall horizon, showing a lateral movement of the roof (see Figure 3).

2. The mine roof had been supported by 3/4 inch diameter, 5-foot long resin type roof bolts used in conjunction with steel mats.

3. The bump(s) appeared to have caused slight failure to the roof and ribs in other areas of the section for about two pillar lengths outby and three pillar widths down dip from the accident site. Most of the failures observed occurred on the west and south edges of the affected pillars.

4. As a result of the bump(s), dislocation of coal to the pillar involved in the accident varied from 2 to 5 feet (see Figure 1).

5. Conflicting statements were obtained as to the number of bumps (up to three were mentioned) and the severity of each immediately prior to the roof fall.

6. The immediate roof was about 18 inches in thickness, which consisted of sandy siltstone and shale.

7. Overburden was between 1250 and 1600 feet in thickness above the accident site, and the mine floor was hard sandstone averaging about 90 feet in thickness.

8. The coal seam averaged 6 feet in height, all of which was mined.

9. In general, entries were established on 65-foot centers with connecting crosscuts at 105-foot intervals

10. The pillar involved in the accident, prior to second mining, was irregular in shape in that the No. 9 crosscut was developed at a northeasterly angle reducing the length of the down dip (cave) side (see Figure 2).

11. Prior to moving to the proposed pillar split in No. 6 entry, the mine roof, from about No. 9 crosscut to the breaker row, was tested and found to be adequate.

12. Persons interviewed stated that the roof in No. 6 entry appeared more stable than the roof was in the area previously moved from.

13. The pillar split off No. 6 entry did not bump as frequently during mining as the pillars previously mined.

14. Mine bumps, varying in degrees of intensity, had occurred in 2½ East section as second mining had progressed. According to statements by crew members, a few resin type roof bolts had sheared at the immediate roof horizon at spot locations.

15. The 2½ East working section and the 4 East longwall working section was separated by an area that was previously mined by the longwall method of mining.

16. The 4 East longwall working face was about 400 feet behind the 2½ East pillar line.

Findings of Fact

There were no citations observed that either caused or contributed to the accident.

Conclusion

The accident occurred because a mine bump caused severe lateral movement of the immediate roof, resulting in the shearing off of 46 resin type roof bolts which caused the immediate roof to fall.

The following factor(s) may have contributed to the occurrence of the accident:

1. Overburden was between 1250 and 1600 feet in thickness.

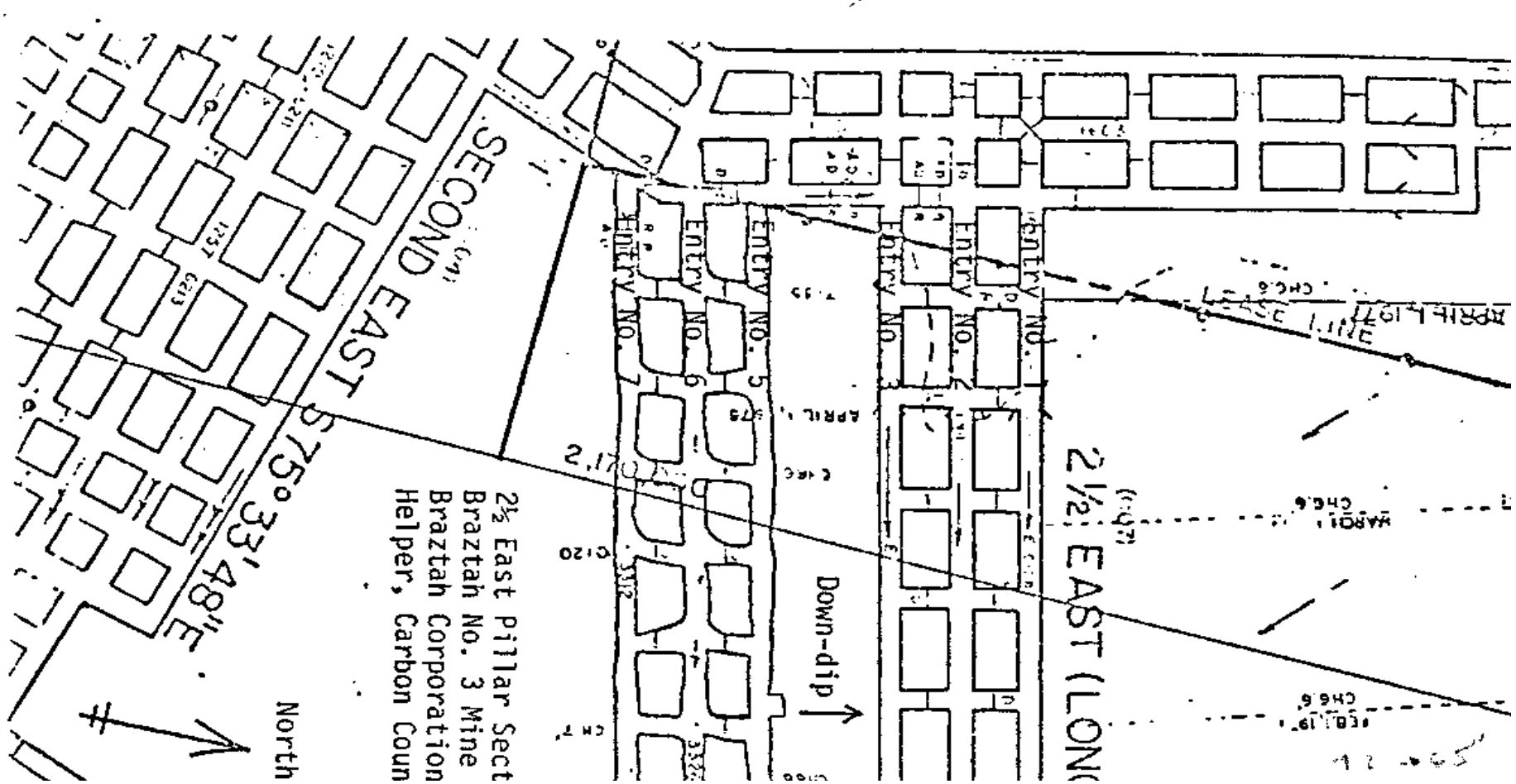
2. The immediate mine roof consisted of sandy siltstone and shale which was about 18 inches in thickness.

3. The immediate mine floor was hard sandstone which averaged about 90 feet in thickness.

4. The chain pillar being mined was irregular in shape.

Charles Babbitt
Civil Engineer, Roof Control

W. J. Blanc
Coal Mine Inspector


SECOND EAST
S75°33'48"E
2½ East Pillar Sect
Braztah No. 3 Mine
Braztah Corporation
Helper, Carbon Coun
North
Entry No. 7
Entry No. 6
Entry No. 5
Entry No.
Down-dip
2½ EAST (LON
LEASE LINE

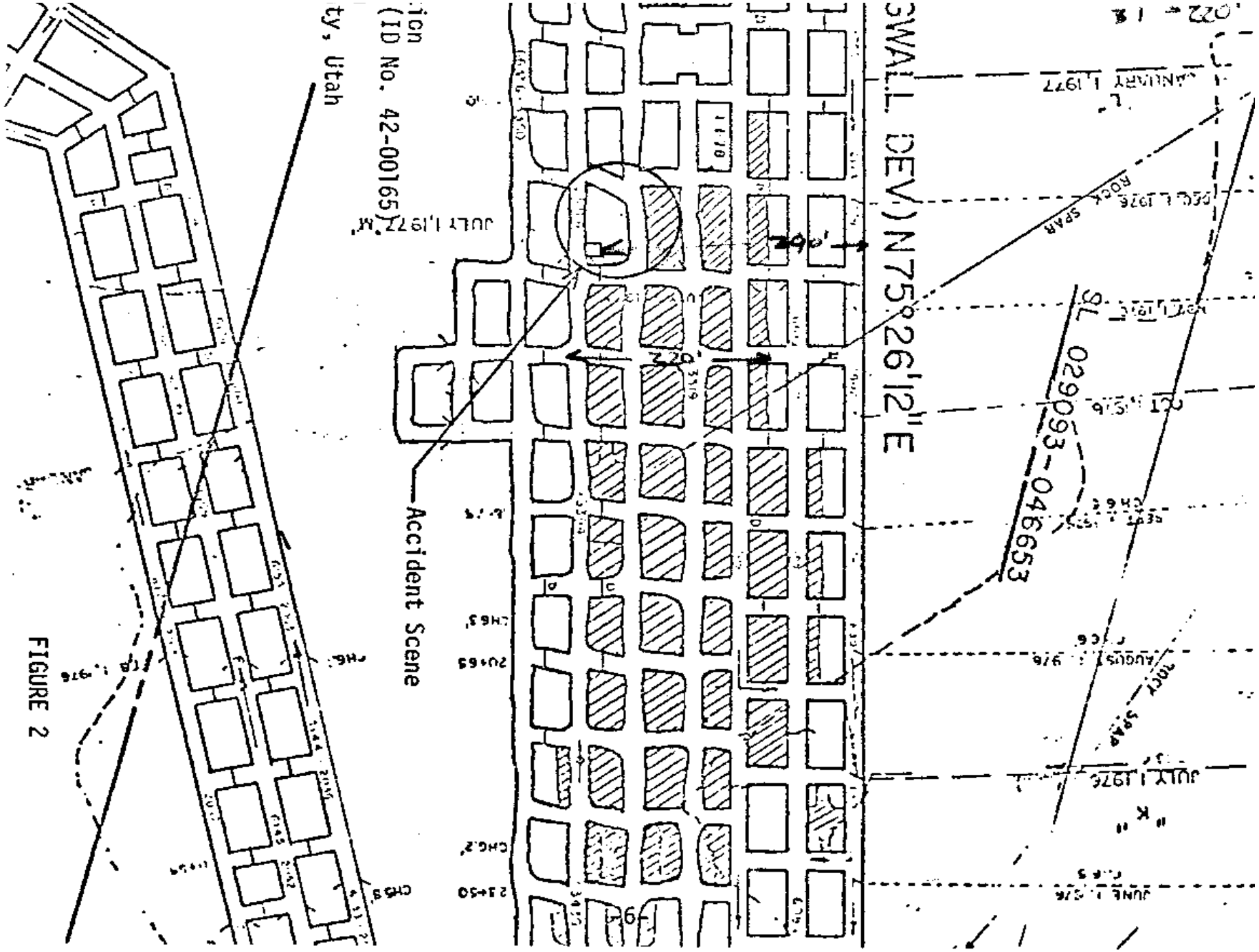
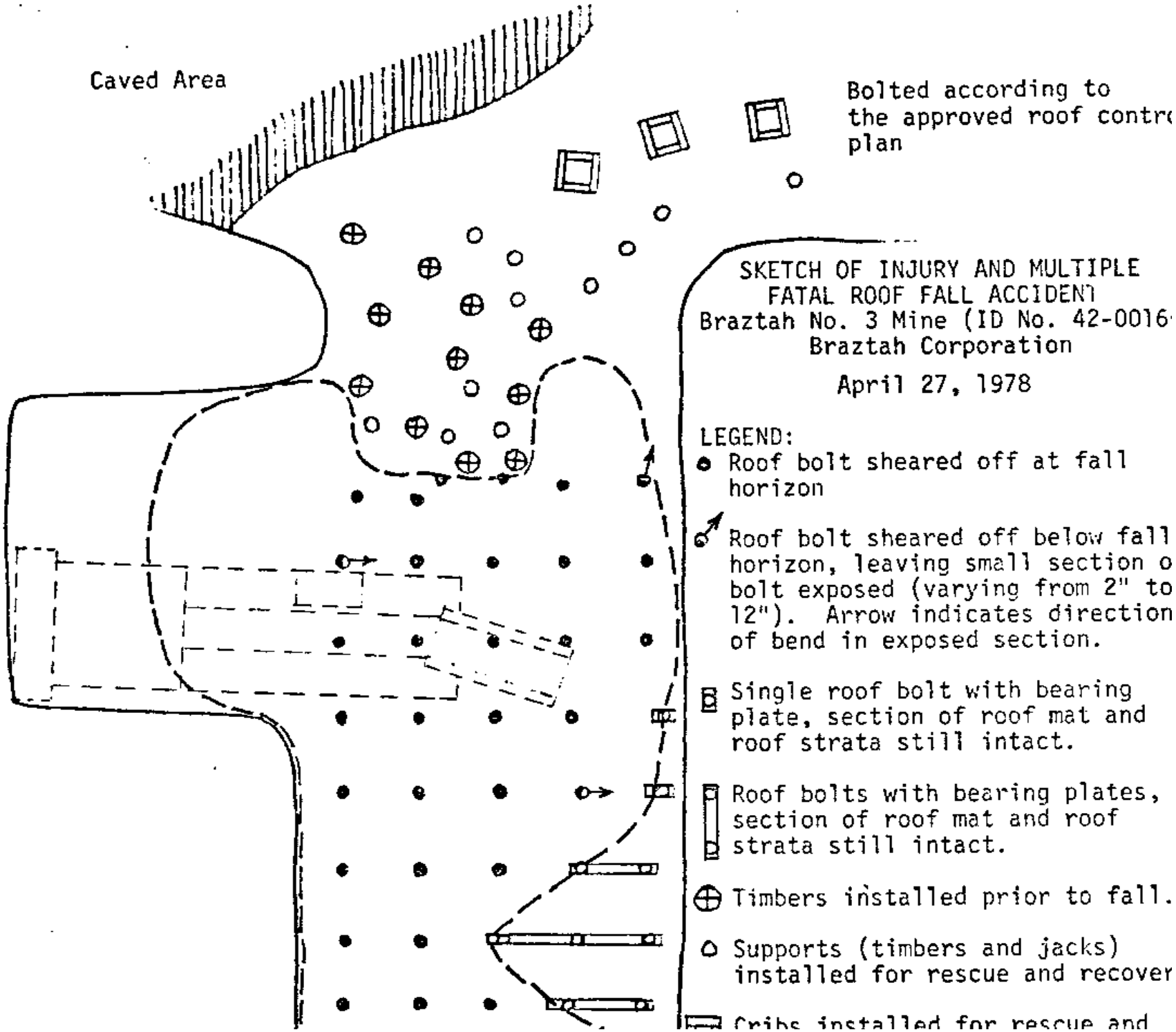


FIGURE 2


Caved Area
Bolted according to the approved roof contr plan
SKETCH OF INJURY AND MULTIPLE FATAL ROOF FALL ACCIDENT
Braztah No. 3 Mine (ID No. 42-0016
Braztah Corporation
April 27, 1978
LEGEND:
Roof bolt sheared off at fall horizon
Roof bolt sheared off below fall horizon, leaving small section o bolt exposed (varying from 2" to 12"). Arrow indicates direction of bend in exposed section.
Single roof bolt with bearing plate, section of roof mat and roof strata still intact.
Roof bolts with bearing plates, section of roof mat and roof strata still intact.
Timbers installed prior to fall.
Supports (timbers and jacks) installed for rescue and recover
Cribs installed for rescue and

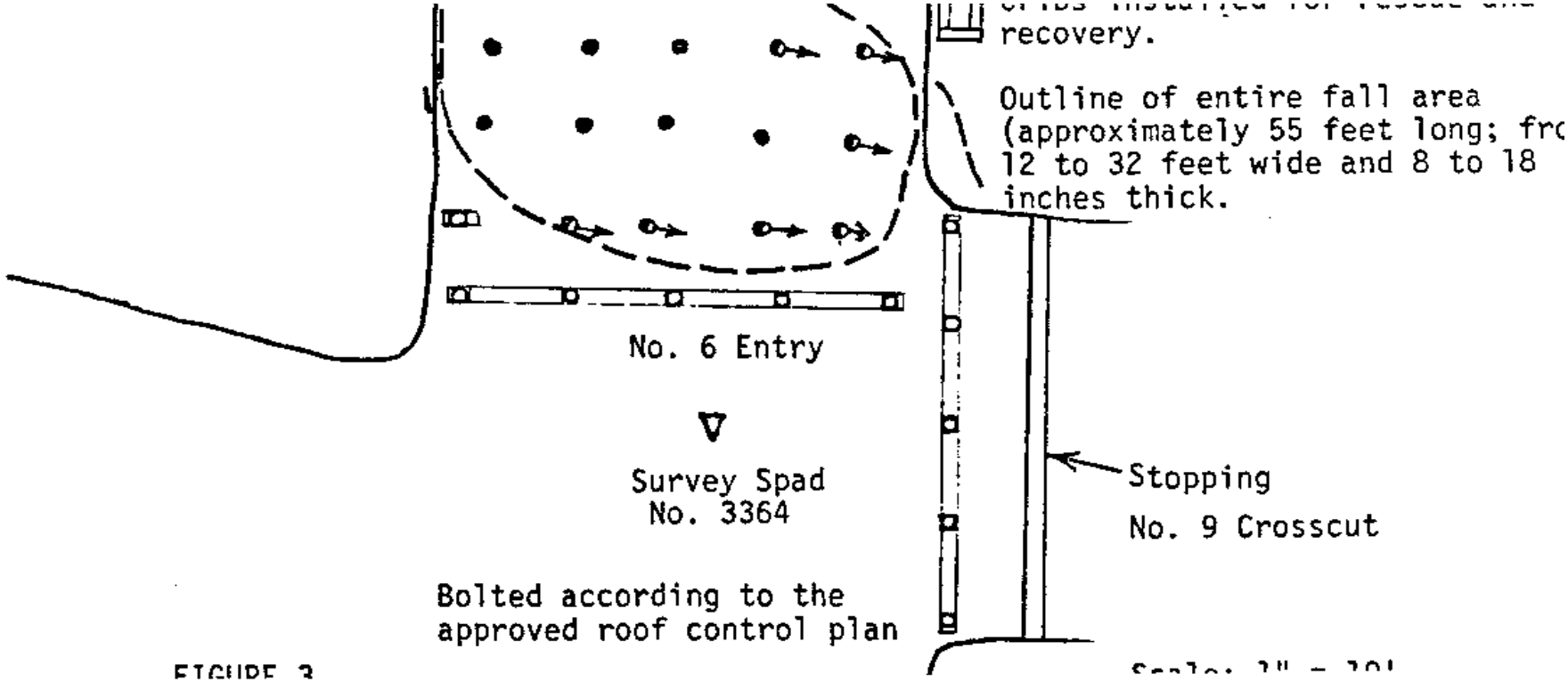


FIGURE 3

APPENDIX

List of persons furnishing information and/or present during the investigation:

Braztah Corporation Officials

Boyd J. Harvey	Vice President of Operations
Gary Fluharty	Manager of Mines

[illegible]	Manager of Mines
Harold Carter	Superintendent No. 3 Mine
Gary Hanson	Foreman No. 3 Mine
John O'Green	Safety Supervisor
John Tatton	Safety Inspector
Randy Tatton	Safety Inspector
Dan Guy	Engineer
Roy Wheeler	Section Foreman
Mike Martinez	Longwall Section Foreman
John Alger	Section Foreman

Braztah Corporation Employees

Willard Mark Duncan	Shuttle Car Operator
William Tracy Parris	Roof Bolter Helper
Billy Passarella	Roof Bolter Operator
Robert Nielsen	Timberman
Partick Houghton	Mechanic
Fred Nichols	Longwall Shear Operator

Representative of Miners

Ronald Mutz	Chairman Safety Committee UMWA Local 8303
James Seevers	Safety Committeeman, UMWA Local 8303
Mike Dalpiaz	Safety Committeeman, UMWA Local 8303
Frank Roybal, Jr.	Safety Inspector, International UMWA
Arnando Tollis	Safety Inspector, International UMWA

State Industrial Commission of Utah

Frank E. Ularich	State Mine Inspector
William Cave	State Mine Inspector

United States Geological Survey

Boyd McKean	Engineer

Mine Safety and Health Administration

Fred W. Tatton, Jr.	Coal Mine Inspection Supervisor
John S. Miller	Supervisory Mining Engineer (Roof Control
James D. Carter	Mining Engineer (Arlington Office)
Sylvester Gaspersich	Coal Mine Safety Specialist (Arlington Office)
W. J. Blanc	Coal Mine Inspector
Theodore L. Caughman	Coal Mine Inspector
Parley D. Hinkins	Coal Mine Inspector
Charles Babbitt	Civil Engineer (Roof Control)

DATA SHEET

Victim Data

Name John Wade Davies Sex Male SSN 528-84-3399

Age 24 Job Classification Continuous-Mining-Machine Operator Experience at thi

Classification 1½ years Total Mining Experience 3 years

What activity was being performed at time of accident? Sawing Timber

Victim's experience at this activity Spread throughout 3 years Was victim trained in this task? Yes

Health and Safety Courses/Training Received (Related to Accident)

	Date Received
Accident Prevention	11/15/76
Roof and Rib Control and Plan	11/23/77
Regulations Related to Job Duties	11/23/77

Supervisor Data (Supervisor of Victim)

Name Roy Lee Wheeler Certified: Yes X No. ___

Experience as Supervisor 19 months Total Mining Experience 7 years

Health and Safety Courses/Training Received	Date Received
Coal Mine Health & Safety Act, 1969 and New Amendments Act, 1977	12/16/77
Use of 02 BRTH APP-McCaa Facepiece, 4/10/76; Accident Prevention, 12/8/77, 12/16/77	
Regulations related to Job Duties, 11/23/77; Elements of Supervision, 12/30/77	
Roof and Rib Control, Ventilation, Transportation and Moving Equipment Hazards, Fir Fighting, First Aid Methods, Electrical Hazards and Regulations Related to Job Duit	11/23/77

When was the supervisor last present at accident scene prior to the accident? He was present during the accident What did he do when he was there? He was supervising work activies of victims and injured person.

When was he last in contact with the victim? At the time of the accident

Did he issue instructions relative to the accident? No

Was he aware of or did he express an awareness of any unsafe practice or

Was he aware of or did he express an awareness of any unsafe practice or condition? No

Was he involved in any activity other than supervision?

No.

DATA SHEET

Victim Data

Name Charles R. Marchello Sex Male SSN 528-32-7327

Age 48 Job Classification Continuous-Mining Machine-Operator Acting as Helper Experience at th

Classification 3 years Total Mining Experience 11½ years

What activity was being performed at time of accident? Sawing timber

Victim's experience at this activity Spred throughout 11½ years Was victim trained ir this task? Yes

Health and Safety Courses/Training Received (Related to Accident) Date Received

Accident Prevention	11/17/76
Regulations Related to Job Duties	9/8/77 and 11/23/77
Roof and Rib Control and Plan	11/23/77

Supervisor Data (Supervisor of Victim)

Name Roy Lee Wheeler Certified: Yes X No. __

Experience as Supervisor 19 months Total Mining Experience 7 years

Health and Safety Courses/Training Received	Date Receive
Coal Mine Health & Safety Act, 1969 and New Amendments Act, 1977	12/16/77
Use of 02 BRTH APP- McCaa Facepiece, 4/10/76; Accident Prevention,	12/8/77 & 12/1
Regulations Related to Job Duties, 11/23/77; Elements of Supervision,	12/30/77
Roof and Rib Control, Ventilation, Transportation and Moving Equipment Hazards, F	
Fighting, First Aid Methods, Electrical Hazards and Regulations Related to Job Du	
11/23/77	

When was the supervisor last present at accident scene prior to the accident?

He was present during the accident What did he do when he was there? He wa

supervising work activities of victims and injured person.

When was he last in contact with the victim? At the time of the accident

Did he issue instructions relative to the accident? No

Was he aware of or did he express an awareness of any unsafe practice or condition? No

Was he involved in any activity other than supervision?

No

DATA SHEET

Victim Data

Name Robert A. Nielsen Sex Male SSN 528-50-3393

Age 39 Job Classification Unskilled-Laborer Experience at th

Classification 1 month Total Mining Experience 4 months

What activity was being performed at time of accident? setting timber

Victim's experience at this activity Spread Throughout Time Employed Was victim trained in this task? Yes

Health and Safety Courses/Training Received (Related to Accident) Date Received

4-Day Orientation Course

Supervisor Data (Supervisor of Victim)

Name Roy Lee Wheeler Certified: Yes X No.

Experience as Supervisor 19 months Total Mining Experience 7 years

Health and Safety Courses/Training Received Date Receive

Coal Mine Health & Safety Act, 1969 and New Amendments Act, 1977 12/16/77
Use of 02 BRTH APP-McCaa Facepiece, 4/10/76; Accident Prevention, 12/8/77 & 12/16/
Regulations Related to Job Duties, 11/23/77; Elements of Supervision, 12/30/77;
Roof and Rib Control, Ventilation, Transportation and Moving Equipment Hazards, F
fighting, First Aid Methods, Electrical Hazards and Regulations Related to Job Dut
11/23/77

When was the supervisor last present at accident scene prior to the accident?

He was present during the accident What did he do when he was there? He was supervising work activities of the victims and injured person.

When was he last in contact with the victim? At the time of the accident

Did he issue instructions relative to the accident? No

Was he aware of or did he express an awareness of any unsafe practice or condition? No

Was he involved in any activity other than supervision?

No

Return to Utah Listing